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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,827	12/14/2000	Gregory Donald Troxel	00-4044	8663

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VERIZON CORPORATE SERVICES GROUP INC.
C/O CHRISTIAN R. ANDERSEN
600 HIDDEN RIDGE DRIVE
MAILCODE HQEO3H14
IRVING, TX 75038

EXAMINER

KENNEDY, LESA M

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 02/20/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,827

Applicant(s)

TROXEL ET AL.

Examiner

Lesa Kennedy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Remarks

1. This action is responsive to the application filed on December 14, 2000. Claims 1-21 are pending examination. Claims 1-21 are directed towards a method and computer program for network communications between hosts after failing to connect with a router.

Priority

2. This application claims benefit of provisional application 60/232,524 filed on 9/24/00. However, this date is inconsistent with PTO records, which have a filing date of 9/14/00. Applicant is requested to state the correct filing date for the record.

Information Disclosure Statement

3. The information disclosure statement filed on December 14, 2000 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it does not contain proper citations indicating the relevant pages. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of

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determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Drawings

4. The drawings are objected to because in step 164 of Fig. 24:
 - No response from router(s) results in the mobile node establishing a binding with routers, and
 - A response from router(s) results in the mobile node soliciting services provided by hosts(s)

This contradicts information provided in the specification (pg. 17, line 29 – pg. 18, line 4).

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The abstract of the disclosure is objected to because it does not describe the claimed subject matter of the dependent claims. Correction is required. See MPEP § 608.01(b).
6. The disclosure is objected to because of the following informality:

The Detailed Description section makes reference to 'mobile node 100c' in Figure 13 (see page 13, line 19), however there is no reference item labeled 100c in Figure 13.

Appropriate correction is required.

Claim Objections

7. Claim 5, 8, 16 and 19 are objected to because of the following informalities:
- Claims 5 and 8 recite the limitation of a "second host", however there was no reference to this second host in the independent claim (claim 1). For purposes of further reviewing these claims, it will be assumed that the applicant is referring to "the at least one host" in claim 1.
 - Claims 16 and 19 recite the limitation of a "second host", however there was no reference to this second host in the independent claim (claim 12). For purposes of further reviewing these claims, it will be assumed that the applicant is referring to "the at least one host" in claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5, 8, 12-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Narten et al. ("Neighbor Discovery for IP Version 6 (IPv6)", RFC 2461, IETF, pp. 1-93 (as printed), December 1998).

Narten teaches the invention as claimed including a protocol for nodes on the same link to discover each other's presence (see abstract).

As to claim 1, Narten teaches a method for use in delivering network messages, the method comprising:

attempting to identify a router that a first host can communicate with (Sec. 4.1, par 1; Narten discloses that hosts solicit routers to advertise their presence; Sec 4.2, par. 1; Narten discloses that routers respond to the solicitations);

and if the attempt fails, attempting to identify at least one host that the first host can communicate with, the at least one host having a network layer address network prefix that differs from the network layer address network prefix of the first host (Sec. 1, par. 1; Sec. 6, par. 2; Narten discloses that when a host cannot connect to a router, it seeks an alternative using a list of the set of network prefixes that reside on the link).

As to claim 2, Narten teaches the method of claim 1, wherein attempting to identify the router comprises waiting for a router availability message (Sec. 4.1, par. 1; Narten discloses that hosts send router solicitations and wait for the responses).

As to claim 3, Narten teaches the method of claim 2, wherein waiting for the router availability message comprises waiting for a message addressed to a multicast address (Sec 4.2,

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par. 1, par. 3 (see Destination Address); Narten discloses that the destination address for a router advertisement (availability message) may be a multicast address).

As to claim 4, Narten teaches the method of claim 1, wherein attempting to identify the router comprises sending a message querying for available routers (Sec. 4.1, par 1; Narten discloses that hosts solicit routers to advertise their presence).

As to claim 5, Narten teaches the method of claim 1, further comprising sending a message to the second host (Sec. 4.3, par. 1; Narten discloses that a node (host) sends requests to neighboring nodes).

As to claim 8, Narten teaches the method of claim 1, further comprising:

determining an Internet Protocol address of the second host (Sec. 4.4, par. 1, 8 (see Source Address); Narten discloses that the node (second host) sends its IP address when responding to a request); and

modifying a forwarding table to include an entry for the second host (Sec. 5.1, par. 2 (see Neighbor Cache); Narten discloses that a host maintains data about other hosts it has communicated with recently).

Claims 12-16 and 19 represent computer program claims that correspond to method claims 1-5 and 8, respectively. They do not teach or define any new limitations above claims 1-5 and 8, and therefore are rejected for similar reasons.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 6-7, 9-11, 17-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narten et al. in view of Perkins (Perkins, C., ed.; "IP Mobility Support", RFC 2002, IETF, pp. 1-79 (as printed), October 1996).

As to claim 6, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of a router providing a first set of services.

However, Perkins teaches protocol enhancements that allow transparent routing of IP datagrams to mobile nodes on the internet (see abstract). Perkins teaches the limitation of a router providing a first set of services (Sec. 1.5, par. 3 (see Foreign Agent); Perkins discloses that a router may provide services such as detunneling of messages addressed to a mobile node, or routing of messages sent by a mobile node).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to have routers provide different services. One would be motivated to do so to provide optimized network layer routing.

As to claim 7, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of a router providing a second set of services.

However, Perkins teaches the limitation of a router providing a second set of services (Sec. 1.5; par. 3 (see Foreign Agent); Perkins discloses that a router may provide services such as detunneling of messages addressed to a mobile node, or routing of messages sent by a mobile node).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to have routers provide different services. One would be motivated to do so to provide optimized network layer routing.

As to claim 9, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

Narten fails to teach the limitation of the router comprising a foreign agent.

However, Perkins teaches the limitation of a router comprising a foreign agent (Sec. 1.5, par. 3 (see Foreign Agent); Perkins discloses that a foreign agent is a router on a mobile node's visited network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to have an agent that serves the mobile node. One would be motivated to do so to provide the mobile node with specific services such as detunneling of messages.

As to claim 10, Narten teaches the invention substantially as claimed (see the rejection of claim 1 above).

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Narten fails to teach the limitation of the first host comprising a wireless host.

However, Perkins teaches of a host comprising a wireless host (Sec. 1.2; Sec. 1.5; par. 1; Perkins discloses that a mobile node may be a wireless host).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to allow a wireless host to communicate with other hosts. One would be motivated to do so to satisfy the increasing demand for wireless communication.

As to claim 11, Narten teaches the invention substantially as claimed (see the rejection of claim 10 above).

Narten fails to teach the limitation of the at least one host comprising at least one wireless host.

However, Perkins teaches of a host comprising a wireless host (Sec. 1.2; Sec. 1.5; par. 1; Perkins discloses that a mobile node may be a wireless host).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Narten in view of Perkins so as to allow wireless hosts to communicate with each other. One would be motivated to do so to satisfy the increasing demand for wireless communication.

Claims 17-18 and 20-21 represent computer program claims that correspond to method claims 6-7 and 9-10, respectively. They do not teach or define any new limitations above claims 6-7 and 9-10, and therefore are rejected for similar reasons.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lesa Kennedy whose telephone number is (703) 305-8865. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lesa Kennedy
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Andrew Caldwell
Andrew Caldwell